



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/977,124	10/12/2001	Chee-Yee Chung	884.538US1	3114

21186 7590 09/20/2006

SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.
P.O. BOX 2938
MINNEAPOLIS, MN 55402

EXAMINER

DINH, TUAN T

ART UNIT PAPER NUMBER

2841

DATE MAILED: 09/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/977,124

Applicant(s)

CHUNG ET AL.

Examiner

Tuan T. Dinh

Art Unit

2841

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 July 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10, 27-30 and 32-35 is/are pending in the application.
- 4a) Of the above claim(s) 8, 9, 28 and 29 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7, 10, 27, 30, 32-35 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-2, 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Prior Art (figure 1, submitted by applicant, hereafter PA).

As to claims 1-2, 27, PA discloses a resistive element and an apparatus as shown in figure 1, comprising: a resistive element (ESR, L_{cpkg}) including first and second contact points, the first contact point electrically connected to a capacitor terminal of a capacitor (C_{cpkg}), and the second contact point being electrical connected to a circuit board plane, and a resistive material connected to the first and second contact point

PA does not expressly teach a summed series resistance provided by adding a value of resistance for the resistive element to an effective series resistance of the capacitor is approximately equal to an effective series resistance of a circuit board and the circuit board plane connected to circuit board.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to replace the resistive element for increasing an impedance by the

replacement resistor as taught by PA in order to form an equivalent circuit and control a frequency applied on a circuit board or device

As to claim 2, PA discloses the first contact point being connected to the capacitor terminal by solder and the second contact point being electrically connected to the plane by via.

3. Claims 3-7, 10, 30, and 32-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Prior Art (figure 1, submitted by applicant, PA) in view of Nagasaka ('286) as in the record.

As to claims 3-6, and 32-35, PA does not specific disclose the resistive material having the first and second metal, which are nickel and gold. Nagasaka discloses the resistive material (12) includes first and second metals (column 4, lines 10-11), the first metal is nickel and the second metal is gold, see column 4, lines 30-31.

Claimed variations in relative dimensions, which do not specify a device which performs or operates any differently from the prior art, do not patentably distinguish applicant's invention. Gardner v. TEC Systems, Inc., 725 F.2d 1338 (Ct. App. Fed. Cir. 1984).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have a teaching of Nagasaka employed the material of resistive element of PA in order to achieve excellent conductivity.

Regarding claim 7, PA and Nagasaka do not specific disclose the particular dimensions of the first and second metals have a width of about 10 to about 1000

microns, a length of about 10 to about 5000 microns, and a total thickness of about 0.05 to about 2.5 microns. However, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to have a dimension of the resistive element in order to reduce sized and thickness for a miniature device, the workable dimensions of the resistive element would have been a matter of routine experimentation. In re Antonie, 559 F.2d 618 (CCPA 1977). Variations in the dimensional of the resistive element would have been obvious minor adjustments without patentable significance. See In re Aller, 105 USPQ 233 (CCPA 1955) (Where general conditions of the claim are disclosed in the prior art, it is not inventive to discover optimal or workable ranges by routine experimentation).

As to claim 10, Nagasaka teaches the second contact point (12a) is connected to the circuit board plane using a plurality of vias (15, column 4, line19) same reason as in claim 1.

As to claim 30, Nagasaka teaches an outside surface of the resistive element being attached (by a conductive material filled in the through holes 15) same reason as in claim 27.

Response to Arguments

Applicant's arguments with respect to claims 1-7, 10, 27, 30, and 32-35 have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan T. Dinh whose telephone number is 571-272-1929. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Enad Elvin can be reached on 571-272-1990. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

A handwritten signature in black ink, appearing to read 'Tuan Dinh', with a long, sweeping horizontal stroke extending to the right.

Tuan Dinh
September 16, 2006.